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April 10, 2013

RECEIVED

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PUBLIC SERVICE COMMISSION

Mark R. Overstreet (502) 209-1219 (502) 223-4387 FAX moverstreet@stites.com

HAND DELIVERED

Jeff R. Derouen Executive Director Public Service Commission 211 Sower Boulevard P.O. Box 615 Frankfort, KY 40602-0615

RE: Case No. 2012-00578

Dear Mr. Derouen:

Enclosed please find and accept for filing the original and ten copies of Kentucky Power Company's April 10, 2013 data requests to Kentucky Industrial Utility Customers, Inc. and the Sierra Club.

By copy of this letter, the data requests are being served by e-mail transmission and first class mail on counsel for all parties, as well as Commission Staff.

Mark R. Overstreet

trally yours,

MRO

cc: Michael L. Kurtz

Jennifer Black Hans

Shannon Fisk Joe F. Childers Robb Kapla

Richard G. Raff (by e-mail transmission only)

Quang D. Nguyen (by e-mail transmission only)

Alexandria, VA Atlanta, GA Frankfort, KY Franklin, TN Jeffersonville, IN Lexington, KY Louisville, KY Nashville, TN

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

APPLICATION OF KENTUCKY POWER **COMPANY FOR (1) A CERTIFICATE OF** PUBLIC CONVENIENCE AND **NECESSITY AUTHORIZING THE** TRANSFER TO THE COMPANY OF AN UNDIVIDED FIFTY PERCENT INTEREST IN THE MITCHELL **GENERATING STATION AND** ASSOCIATED ASSETS: (2) APPROVAL OF THE ASSUMPTION BY KENTUCKY POWER COMPANY OF CERTAIN LIABILITIES IN CONNECTION WITH THE TRANSFER OF THE MITCHELL **GENERATING STATION: (3) DECLARATORY RULINGS; (4)** DEFERRAL OF COSTS INCURRED IN CONNECTION WITH THE COMPANY'S EFFORTS TO MEET FEDERAL CLEAN AIR ACT AND RELATED REQUIREMENTS; AND (5) ALL OTHER REQUIRED APPROVALS AND RELIEF

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APR 1 0 2013
PUBLIC SERVICE
COMMISSION

Case No. 2012-00578

KENTUCKY POWER COMPANY'S DATA REQUESTS TO ALEXANDER DESHA, TOM VIERHELLER, BEVERLY MAY, AND THE SIERRA CLUB

* * * * * * * *

Pursuant to the Commission's Order dated March 4, 2013, Kentucky Power Company propounds the following data requests to be answered by Alexander Desha, Tom Vierheller, Beverly May, and the Sierra Club and each of its members participating in this proceeding:

DEFINITIONS

1. "Document" means the original and all copies (regardless of origin and whether or not including additional writing thereon or attached thereto) of memoranda, reports, books, manuals, instructions, directives, records, forms, notes, letters, notices, confirmations, telegrams, pamphlets, notations of any sort concerning conversations,

telephone calls, meetings or other communications, bulletins, transcripts, diaries, analyses, summaries, correspondence investigations, questionnaires, surveys, worksheets, and all drafts, preliminary versions, alterations, modifications, revisions, changes, amendments and written comments concerning the foregoing, in whatever form, stored or contained in or on whatever medium, including computerized memory or magnetic media.

- 2. "Study" means any written, recorded, transcribed, taped, filmed, or graphic matter, however produced or reproduced, either formally or informally, a particular issue or situation, in whatever detail, whether or not the consideration of the issue or situation is in a preliminary stage, and whether or not the consideration was discontinued prior to completion.
- 3. "Person" means any natural person, corporation, professional corporation, partnership, association, joint venture, proprietorship, firm, or the other business enterprise or legal entity.
- 4. A request to identify a natural person means to state his or her full name and residence address, his or her present last known position and business affiliation at the time in question.
- 5. A request to identify a document means to state the date or dates, author or originator, subject matter, all addressees and recipients, type of document (e.g., letter, memorandum, telegram, chart, etc.), number of code number thereof or other means of identifying it, and its present location and custodian. If any such document was, but is no longer in the Company's possession or subject to its control, state what disposition was made of it.
- 6. A request to identify a person other than a natural person means to state its full name, the address of its principal office, and the type of entity.
- 7. "Identify" used in a fashion other than as described in instructions 3-6 above means to provide in detail, including all assumptions, bases, facts considered, and rationale if not called for in another part of the data request, the requested information.
- 8. "And" and "or" should be considered to be both conjunctive and disjunctive, unless specifically stated otherwise.
- 9. "Each" and "any" should be considered to be both singular and plural, unless specifically stated otherwise.
- 10. Words in the past tense should be considered to include the present, and words in the present tense include the past, unless specifically stated otherwise.
- 11. "You" or "your" means the person whose filed testimony is the subject of these interrogatories and, to the extent relevant and necessary to provide full and complete answers to any request, "you" or "your" may be deemed to include any person with information relevant to any interrogatory who is or was employed by or otherwise

associated with the witness or who assisted, in any way, in the preparation of the witness' testimony.

- 12. "Sierra Club" means the Sierra Club, its employees, agents, and its members identified in this proceeding, Alexander Desha, Tom Vierheller, Beverly May, Tim Woolf and Synapse Energy Economics, Inc.
- 13. "PJM" means PJM Interconnection.
- 14. "Company" means Kentucky Power Company.
- 15. "AEP" means American Electric Power Company, Inc.

INSTRUCTIONS

- 1. If any matter is evidenced by, referenced to, reflected by, represented by, or recorded in any document, please identify and produce for discovery and inspection each such document.
- 2. These interrogatories are continuing in nature, and, without regard to the date created or obtained, information which the responding party later becomes aware of, or has access to, and which is responsive to any request is to be made available to Kentucky Power. Any studies, evaluations, analyses, documents, or other subject matter not yet completed that will be relied upon during the course of this case should be so identified and provided as soon as they are completed. The Respondent is obliged to change, supplement and correct all answers to interrogatories to conform to available information, including such information as it first becomes available to the Respondent after the answers hereto are served.
- 3. Unless otherwise expressly provided, each interrogatory should be construed independently and not with reference to any other interrogatory herein for purpose of limitation.
- 4. The answers provided should first restate the question asked and also identify the person(s) supplying the information.
- 5. Please answer each designated part of each information request separately. If you do not have complete information with respect to any interrogatory, so state and give as much information as you do have with respect to the matter inquired about, and identify each person whom you believe may have additional information with respect thereto.
- 6. In the case of multiple witnesses, each interrogatory should be considered to apply to each witness who will testify to the information requested. Where copies of testimony, transcripts or depositions are requested, each witness should respond individually to the information request.
- 7. The interrogatories are to be answered under oath by the witness(es) responsible for the answer.

8. Please furnish any non-disclosure or other required for disclosure of any information or response for which confidential treatment provided.

Data Requests

- 1. Please refer to the testimony of Mr. Woolf, Exhibit TW-3, page 3, regarding Efficiency Vermont's 2008 results:
- (a) How much (percent of the total claimed) of the reduction in energy use is attributable to residential conversion from incandescent to compact fluorescent light bulbs ("CFLs")?
 - (b) What baseline technology are the residential CFLs measured against?
- (c) For calendar year 2008 and any other year that Sierra Club has the information, what percentage of residential electric consumption in Vermont is attributable to lighting?
- (d) What percentage of the residential savings resulted from the early replacement of end-use appliances?
- (e) What percentage of the total claimed savings is attributable to business lighting measures?
- (f) What baseline technology or technologies were used to measure the business savings for lighting measures?
- (g) What was the net-to-gross ratio used by Efficiency Vermont to determine residential lighting savings in 2008?
- (h) What was the net-to-gross ratio used by Efficiency Vermont to determine business lighting savings in 2008?
- (i) What was the assumption of annual hours of use per CFL bulb used by Efficiency Vermont in 2008?
- 2. Please refer to the testimony of Mr. Woolf, Exhibit TW-3, page 4, regarding California's "nearly 2%" reduction achieved in 2007:
- (a) How much (percent of the total claimed) of the reduction in energy use is attributable to residential conversion from incandescent to compact fluorescent lighbulbs ("CFLs")?
 - (b) What baseline technology are the residential CFLs measured against?
- (c) For calendar year 2007 and any other year that Sierra Club has the information, what percentage of residential electric consumption in California is attributable to lighting?

- (d) What percentage of the residential savings resulted from the early replacement of end-use appliances?
- (e) What percentage of the total claimed savings is attributable to business lighting measures?
- (f) What baseline technology or technologies were used to measure the business savings for lighting measures?
- (g) What was the net-to-gross ratio used by California to determine residential lighting savings in 2007?
- (h) What was the net-to-gross ratio used by California to determine business lighting savings in 2007?
- (i) What was the assumption of annual hours of use per CFL bulb used California in 2007?
 - (i) Are these results claimed or final evaluated results?
- 3. Is Sierra Club familiar with the 2006-2008 Energy Efficiency Evaluation Report published in 2010 by the California Public Utility Commission?
- (a) If so, please describe the evaluated results relative to the results reported for California on page 4 of Exhibit TW-3 of the testimony of Mr. Woolf.
 - (b) What was the resultant net-to-gross value for CFLs?
- (i) How does this value compare to the net-to-gross assumption int eh results for California reported on page 4 of Exhibit TW-3 of the testimony of Mr. Woolf?
 - (c) What was the resultant annual hours of use per CFL?
- (i) How does this value compare to the net-to-gross assumption int eh results for California reported on page 4 of Exhibit TW-3 of the testimony of Mr. Woolf?
- 4. Is Sierra Club familiar with the *Analysis to Update Energy Efficiency Potential*, *Goals*, *and Targets for 2013 and Beyond*, prepared for the California Public Utilities Commission and made available in March of 2012? If so, please describe the levels of "maximum achievable" savings attributable to utility-sponsored programs as a percent of forecast consumption in each of the years 2013-2020.
 - 5. Please refer to the testimony of Mr. Woolf, Exhibit TW-4.
- (a) What part of the 23% of economic potential savings described in the McKinsey & Company report would best be effected by utility-sponsored programs?
- (b) Please describe the difference between economic potential and market potential.

- (c) What discount rate did McKinsey use in their analysis to determine economic potential?
- (d) What was the average cost of energy used in the determination of economic potential?
- (e) What part of the 23% of economic potential savings described would best be effected through codes and standards?
- (f) What part of the 23% of economic potential savings described would best be effected through tax incentives?
 - (g) What percentage of end-use savings comes from the industrial sector?
 - (h) Does the McKinsey study exclude "mining operations" from its analysis?
- (i) What percentage of the "Electrical Devices and Small Appliances" potential does McKinsey feel would be in the purview of utility-sponsored efficiency programs?
- (j) What discount rates does McKinsey suggest are necessary for energy efficiency investment in the residential, commercial, and industrial sectors?
- (k) In Sierra Club's opinion, what will be the average cost of energy, comparable to the McKinsey & Company assumption?
- 6. Throughout his testimony, Mr. Woolf claims that energy consumption savings may be achieved through the use of energy efficiency and DSM measures. For each such claim, please identify the standard or technology that establishes the baseline against which the savings are calculated.
- (a) For each standard identified, please identify whether that standard is currently applicable in Kentucky Power's service area.
 - 7. In what year were T-12 lighting fixtures last allowed to be sold in the U.S.?
 - 8. In what years are the EISA lighting standards for screw-in lights effective?
- 9. In Sierra Club's opinion, specifically as it pertains to CFLs, should utilities continue to provide financial incentives for general service CFL bulbs when the only alternative bulbs are more expensive?
- 10. In Sierra Club's opinion, what benchmark or standard should T-8 lighting retrofits be measured against, prospectively?
- 11. For calendar year 2012 and any other year that Sierra Club has the information, what percentage of Kentucky's residential electricity consumption is attributable to lighting?

- (a) For each year that Sierra Club has information regarding the percentage of Kentucky's residential electricity consumption that is attributable to lighting, please identify the source of that information.
- (b) Please provide copies of all documents used to identify the percentage of Kentucky's residential electricity consumption that is attributable to lighting.
- (c) Please provide all spreadsheets, work papers, calculations, analyses, and calculations relating to, reviewed by, consulted, that were performed, consulted or relied upon by Sierra Club to identify the percentage of Kentucky's residential electricity consumption that is attributable to lighting. The requested information should be provided in an electronic format, with formulas intact and visible, and no pasted values.
- (d) If the percentage of lighting end-use is less in Kentucky than in Vermont or California, would an identical reduction in the amount of lighting result in a lower or higher overall percentage reduction?
- 12. Please identify all studies, reports, analyses or other documents since 2008 that Sierra Club is aware of that demonstrate achieving greater than 0.5% annual energy consumption savings for DSM measures other than lighting upgrades.
- 13. Please refer to page 31, lines 15-31 of Mr. Woolf's testimony. Does Sierra Club agree that the Company's April 10, 2013 application seeking Commission approval of the Renewable Energy Purchase Agreement for Biomass Energy Resources between ecoPower Generation-Hazard LLC and Kentucky Power Company will add renewable resources to the Company's portfolio? If the answer to this data request is anything but an unqualified "yes," please provide each fact relied upon by Sierra Club in failing to answer with an unqualified "yes."
- 14. Please refer to page 32 of the testimony of Tim Woolf. Please provide a copy of the 2012 Synapse Energy Economics study entitled "Potential Impacts of a Renewable and Energy Efficiency Portfolio Standard in Kentucky."
- 15. Please identify whether Mr. Woolf reviewed any studies or other materials or performed any evaluations relating to whether specific renewable resources will be available for the Company to meet a portion of its capacity and energy requirements upon the retirement of Big Sandy Unit 2 in June 2015. Please identify and provide copies of each study or other materials responsive to this request.
- 16. Please refer to pages 22 23 of the testimony of Tim Woolf where Mr. Woolf cites to a report prepared by the Brattle Group (the executive summary of which was attached as Exhibit TW-5) to support his claims that Kentucky could reduce its peak demand by 2019 by up to 18 percent depending on the level of demand response implementation. The report included as Exhibit TW-5 contains no state-specific analyses. Please identify and provide all documents used by Mr. Woolf to support his claim that peak demand in Kentucky could be reduced as described in his testimony.

- 17. Please identify whether Mr. Woolf reviewed any studies or other materials or performed any evaluations regarding the potential effectiveness of DSM measures in Kentucky Power's service area. Please identify and provide copies of each study or other materials responsive to this request.
- 18. Please identify whether Mr. Woolf reviewed any studies or other materials or performed any evaluations regarding the potential effectiveness of DSM measures for utilities whose customers' average incomes are similar to the average income of Kentucky Power's customers. Please identify and provide copies of each study or other materials responsive to this request.
- 19. Please identify whether Mr. Woolf reviewed any studies or other materials or performed any evaluations regarding the potential effectiveness of DSM measures for steep slope, Central Appalachian mining operations. Please identify and provide copies of each study or other materials responsive to this request.
- 20. Please refer to page 26, lines 26-27 of the testimony of Tim Woolf. Please identify and provide all support, including any documents reviewed, for Mr. Woolf's conclusion that "the Company has an obligation to provide DSM services to all of its customers, including industrial customers, in order to offer them one of the best means of reducing their electric bills."
- 21. Please refer to page 31, lines 12-14 of the testimony of Tim Woolf. Please identify and provide all support, including any documents reviewed, for Mr. Woolf's conclusion that "An economic assessment of renewable resources in 2012, in light of the Big Sandy retirement, would very likely find more cost competitive renewable resource potential than the Company found in 2009."
- 22. Please refer to page 45, lines 24-31, and page 46, lines 1-15 of the testimony of Tim Woolf.
- (a) Please identify which of the assets identified by Mr. Woolf as demonstrating the current market value of coal plants should have been considered by the Company in the review advocated by Mr. Woolf at page 45.
- (b) For each such asset please identify and provide all facts and documents supporting Mr. Woolf's contention that the asset is comparable to the Mitchell Generating Station.
- 23. Please refer to page 46, lines 1-15 of the testimony of Tim Woolf. With respect to the Dominion and Exelon transactions referenced in that portion of the testimony, please provide for each transaction the following:
- (a) All documents reviewed or used by Mr. Woolf in his analysis of the transactions.
- (b) All spreadsheets, work papers, calculations, analyses, and calculations relating to, reviewed by, consulted, that were performed, consulted or relied upon by Mr. Woolf

with respect to the identified transactions. The requested information should be provided in an electronic format, with formulas intact and visible, and no pasted values.

- (c) All internal and external Sierra Club reports which relate to the generation plants sold by Exelon and Dominion referenced on page 46, lines 1-15 of Mr. Woolf's Direct Testimony ("Maryland Generation Plants").
- (d) All Sierra Club press releases which relate to the Maryland Generation Plants, either as individual generating units or as collective portfolios.
- (e) A list of all litigation filed since 2003 where Sierra Club was a party involving the Maryland Generation Plants. For each identified case, please identify the date, other parties to the case, the forum, and the outcome and provide a description of Sierra Club's positions in the lawsuits and claims for relief.
- 24. Please refer to page 45, lines 24-31, and page 46, lines 1-15 of the testimony of Tim Woolf. Please identify any transactions noted or reviewed by Mr. Woolf in connection with the preparation of the identified testimony that were not included in the identified testimony. Individually, for each such transaction, please provide the following information:
- (a) All documents reviewed or used by Mr. Woolf in his analysis of the transactions that were not included;
- (b) All spreadsheets, work papers, calculations, analyses, and calculations relating to, reviewed by, consulted, that were performed, consulted or relied upon by Mr. Woolf with respect to the transactions that were not included. The requested information should be provided in an electronic format, with formulas intact and visible, and no pasted values.
- (c) A detailed explanation of the basis for the decision not to include each transaction.
- 25. Is Mr. Woolf aware of the Sierra Club's efforts to force the early retirement of two of the three Maryland Generation Plants sold by Exelon described on page 46, lines 1-9 of his Direct Testimony?
- (a) Does Mr. Woolf contend that the Sierra Club's campaign to force the retirement of two of the three Maryland Generation Plants sold by Exelon affects the market price of those plants? If the answer to this data request is anything other than an unqualified "yes," please state each fact upon which Mr. Woolf relies in support of his answer.
- 26. Please refer to page 46, lines 5-7 of the testimony of Tim Woolf. Please provide a unit-specific breakdown of the \$1 billion retrofit investments. As part of the breakdown, please provide the type of environmental upgrade installed, the cost of each upgrade and the date the upgrade was placed in service.

Respectfully/submitted,

Mark R. Overstreet

R. Benjamin Crittenden

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COUNSEL FOR KENTUCKY POWER COMPANY

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing was served by e-mail transmission and first class mail, postage prepaid, upon the following parties of record, this 10th day of April, 2013.

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